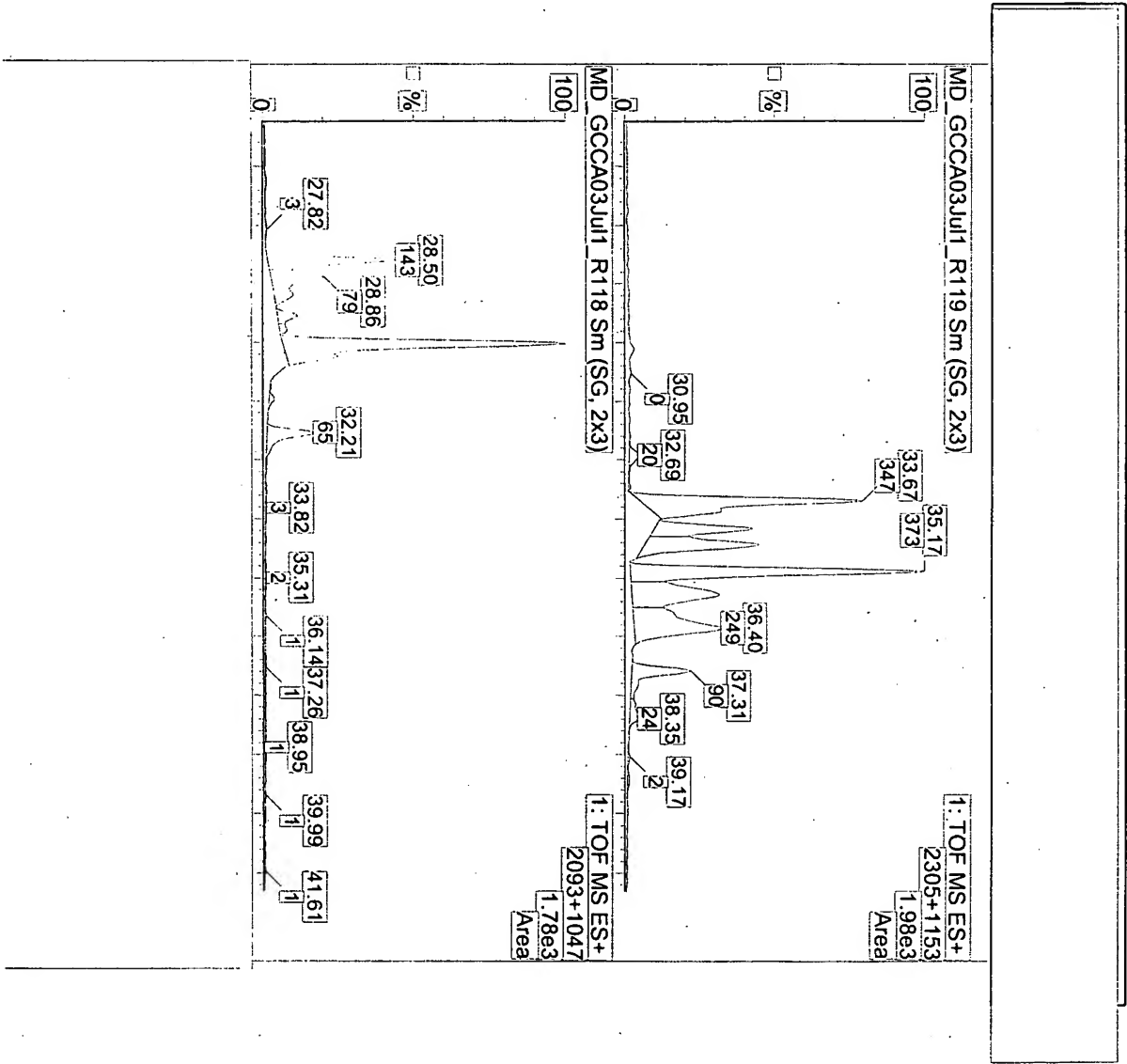


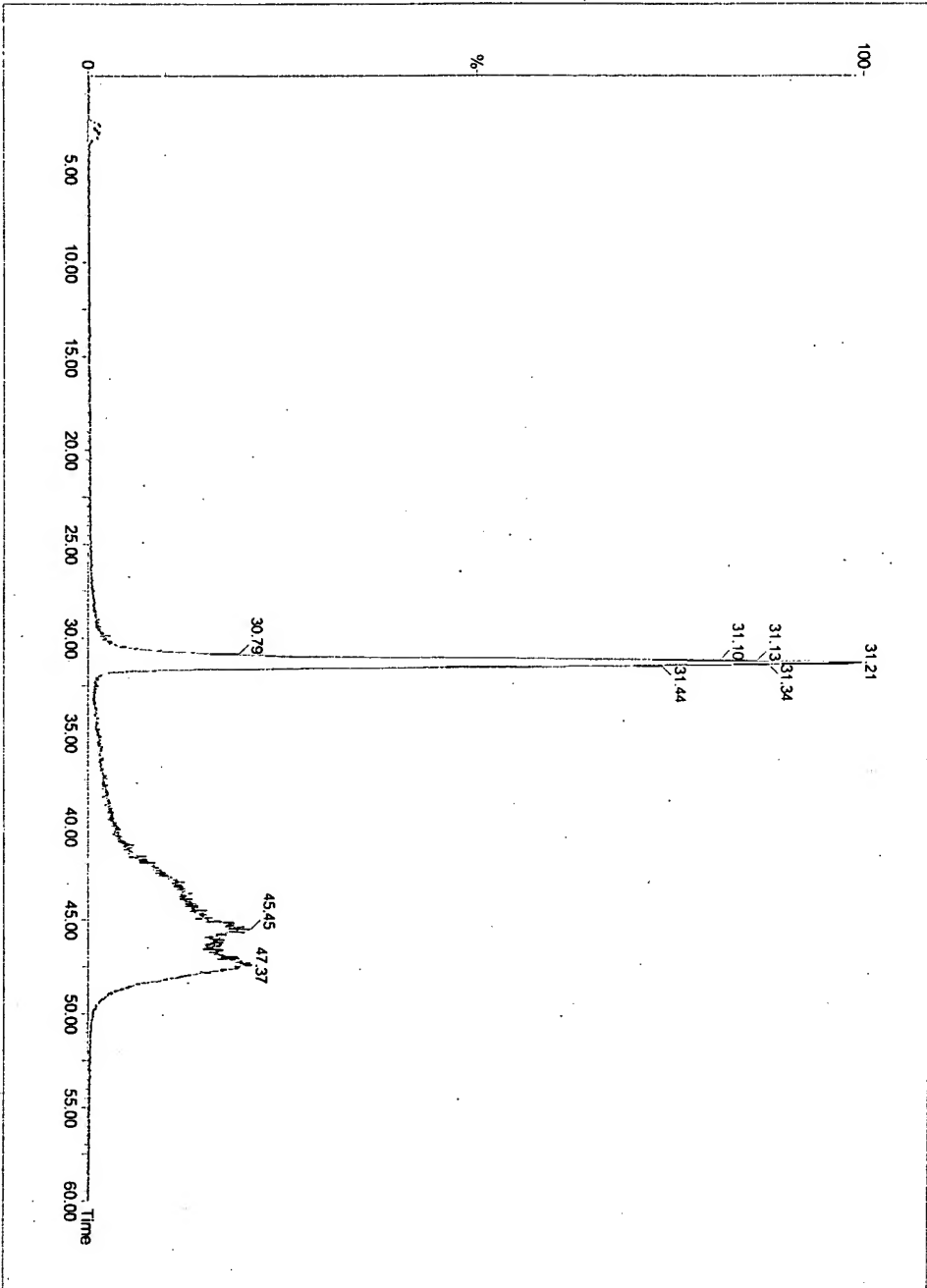
Figure 1. LCMS analysis of recombinant peptide variants

MM-416776

MD-915

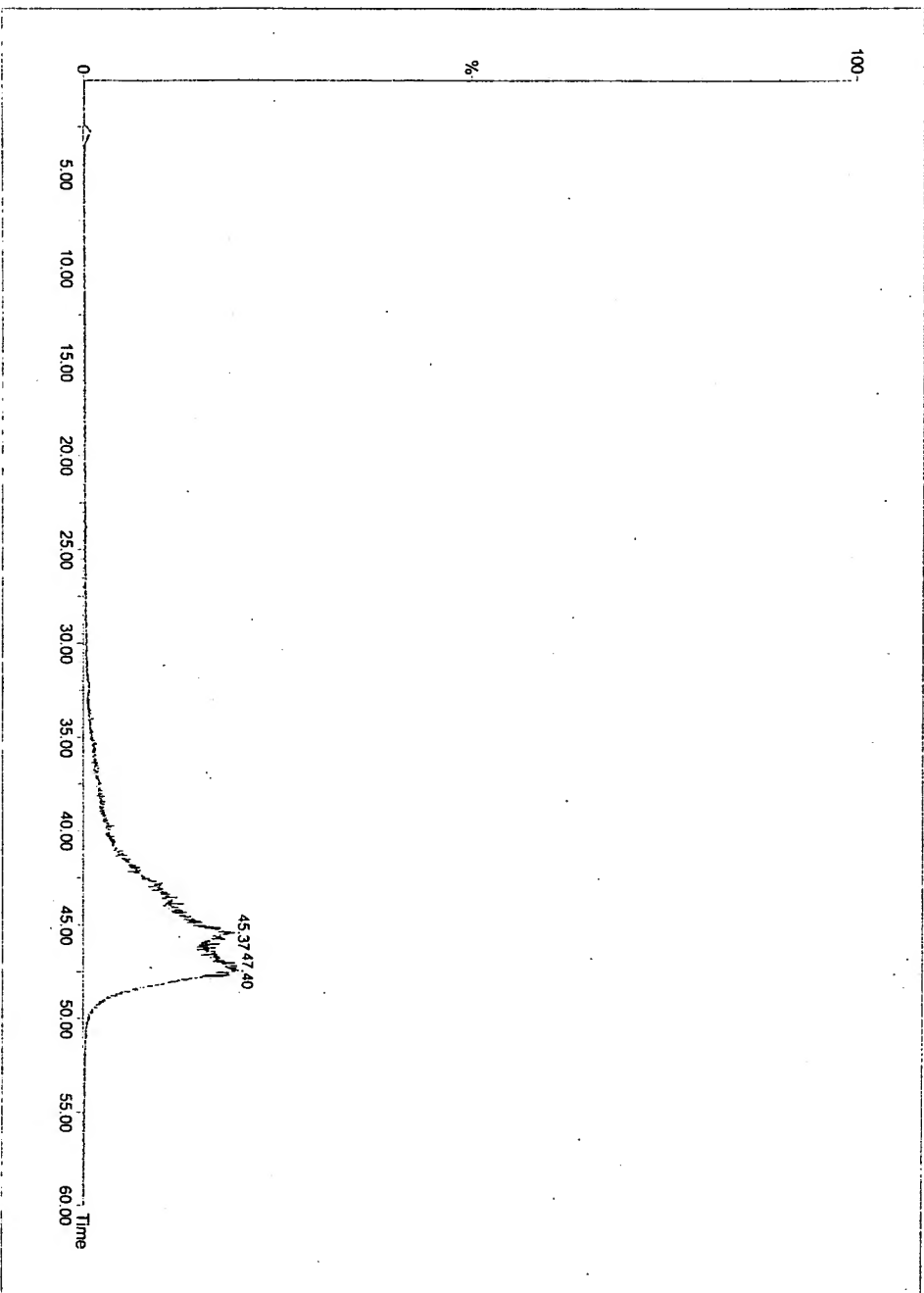


**Figure 1b: LCMS analysis of synthetic MD-1100 (Total Ion Chromatograph (TIC) )**



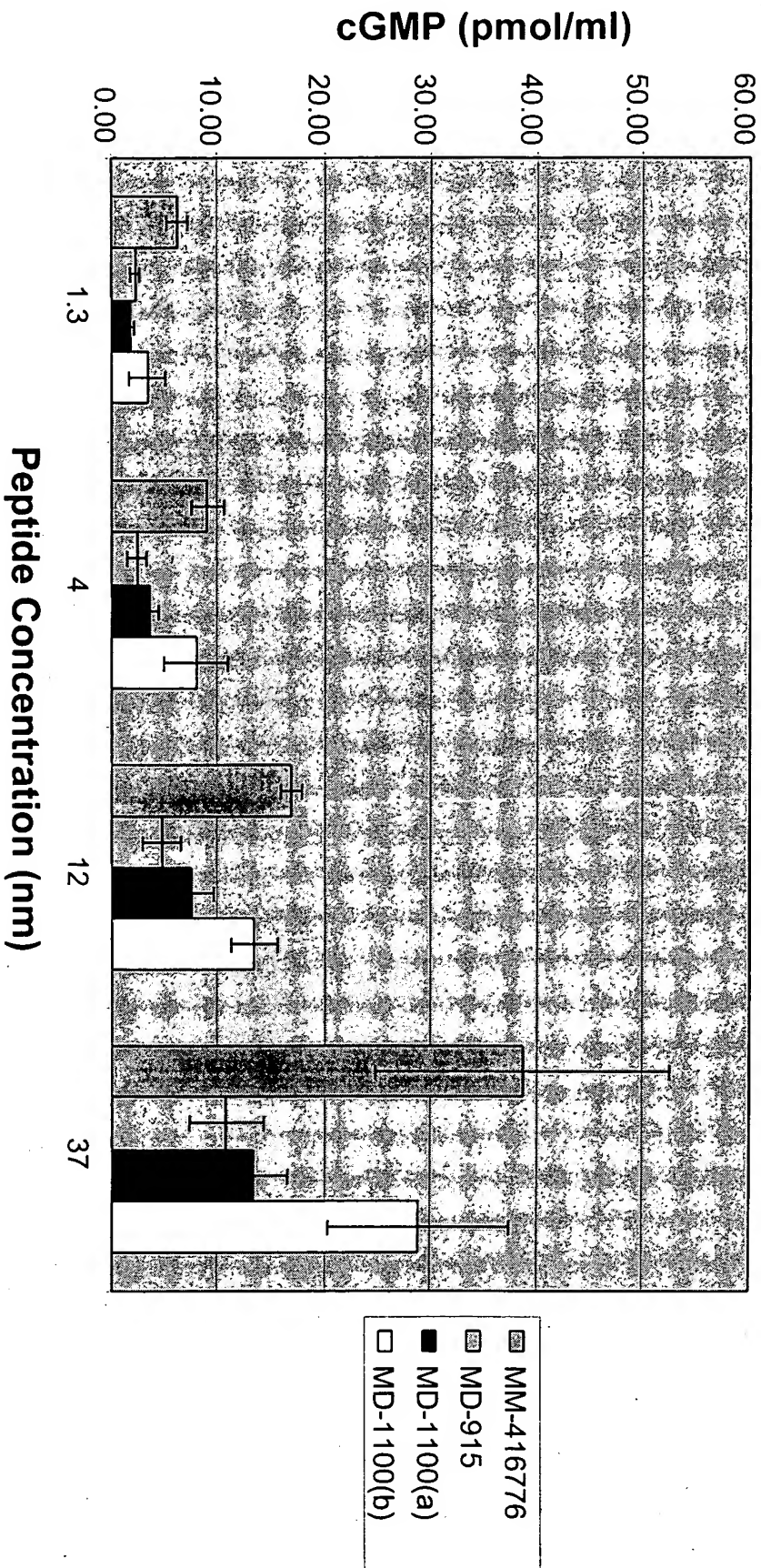
*Confidential*

**Figure 1c: LCMS analysis (Total Ion Chromatograph of  
blank used in MD-1100 analysis)**



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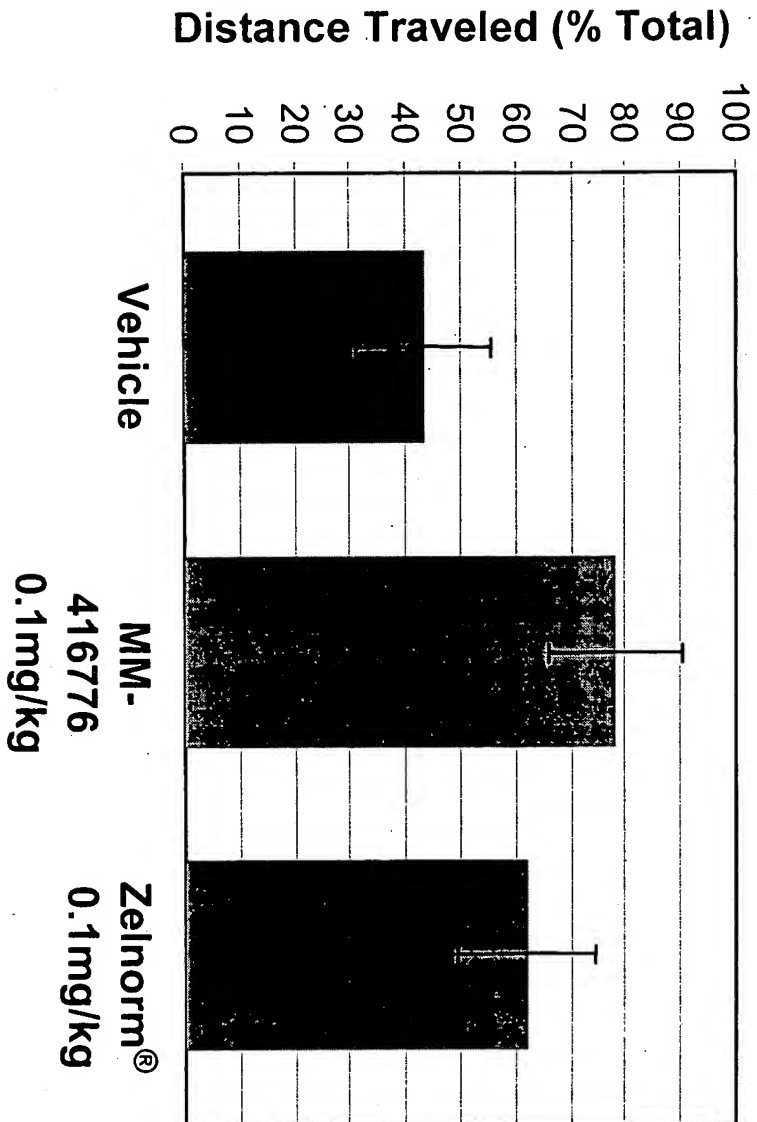
**Figure 2. Chemically synthesized peptides in the  
Intestinal GC-C Receptor Activity Assay**



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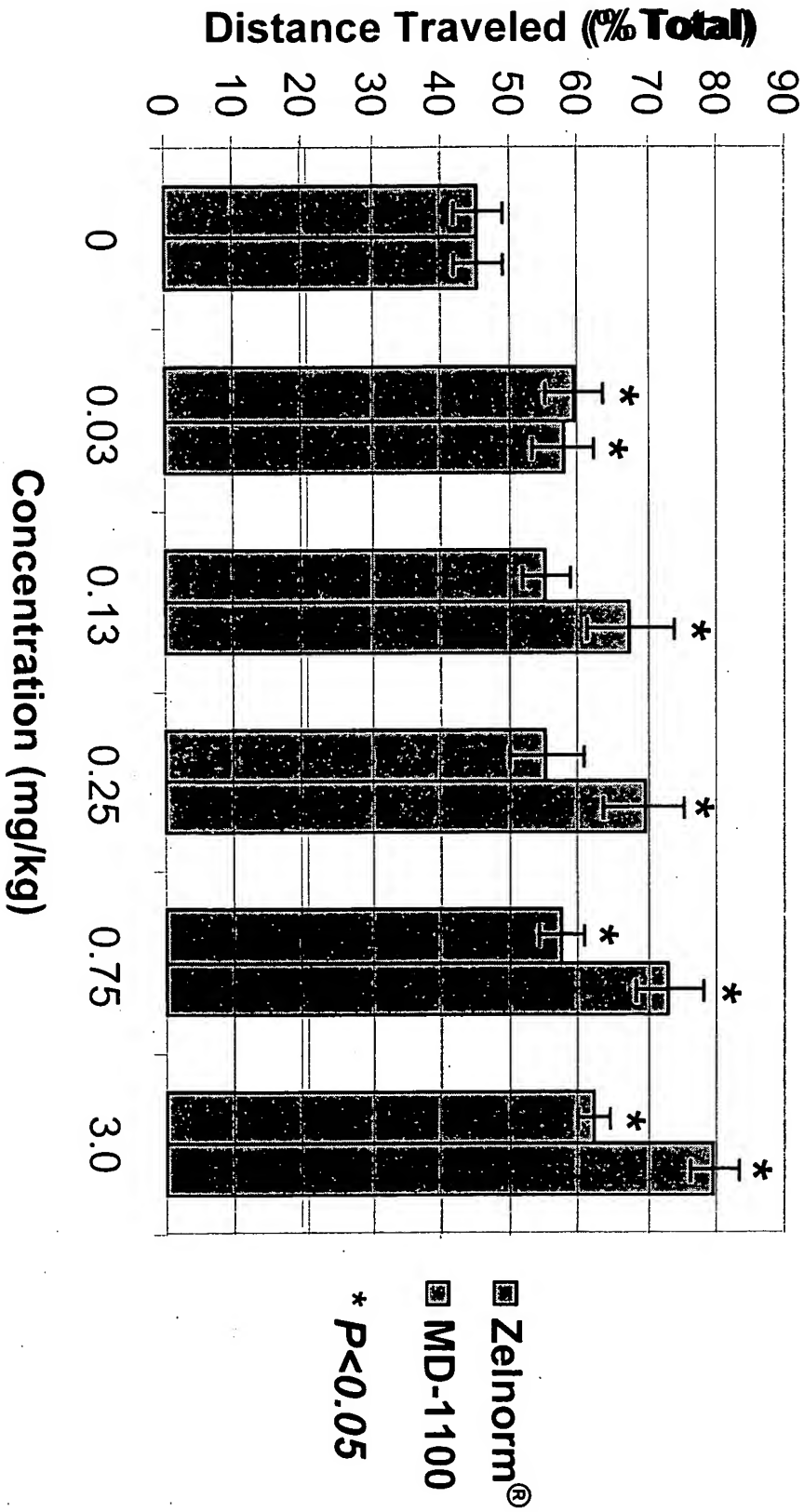
**Figure 3a. MM-416776 vs Zelnorm® in an acute Mouse  
Gastrointestinal Transit Model (GIT)**



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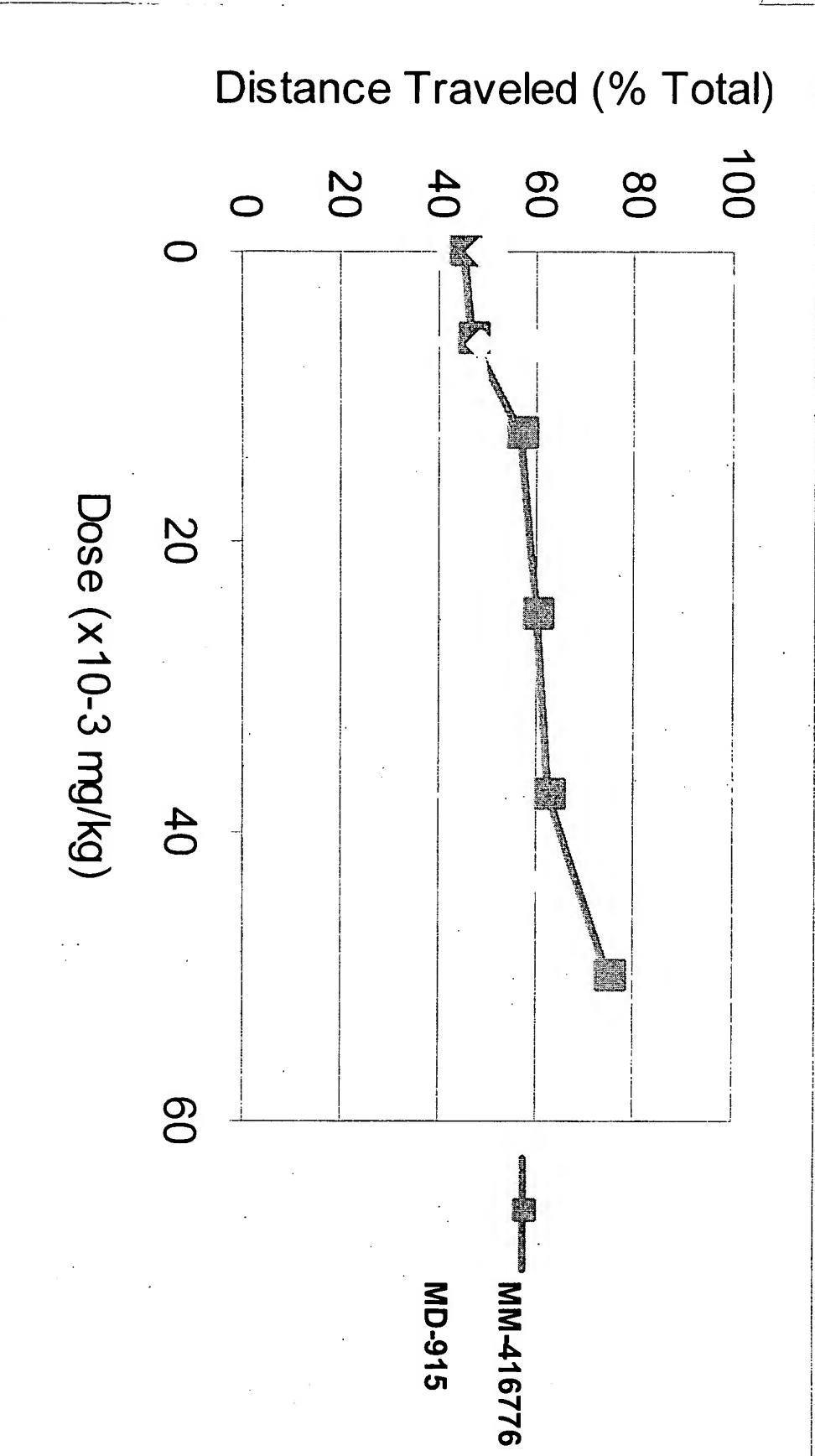
**Figure 3b: MD-1100 vs. Zelnorm® in an acute Mouse  
 Gastrointestinal Transit Model**



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**Figure 4a. Purified MD-915 and MM-416776 in GIT Model**



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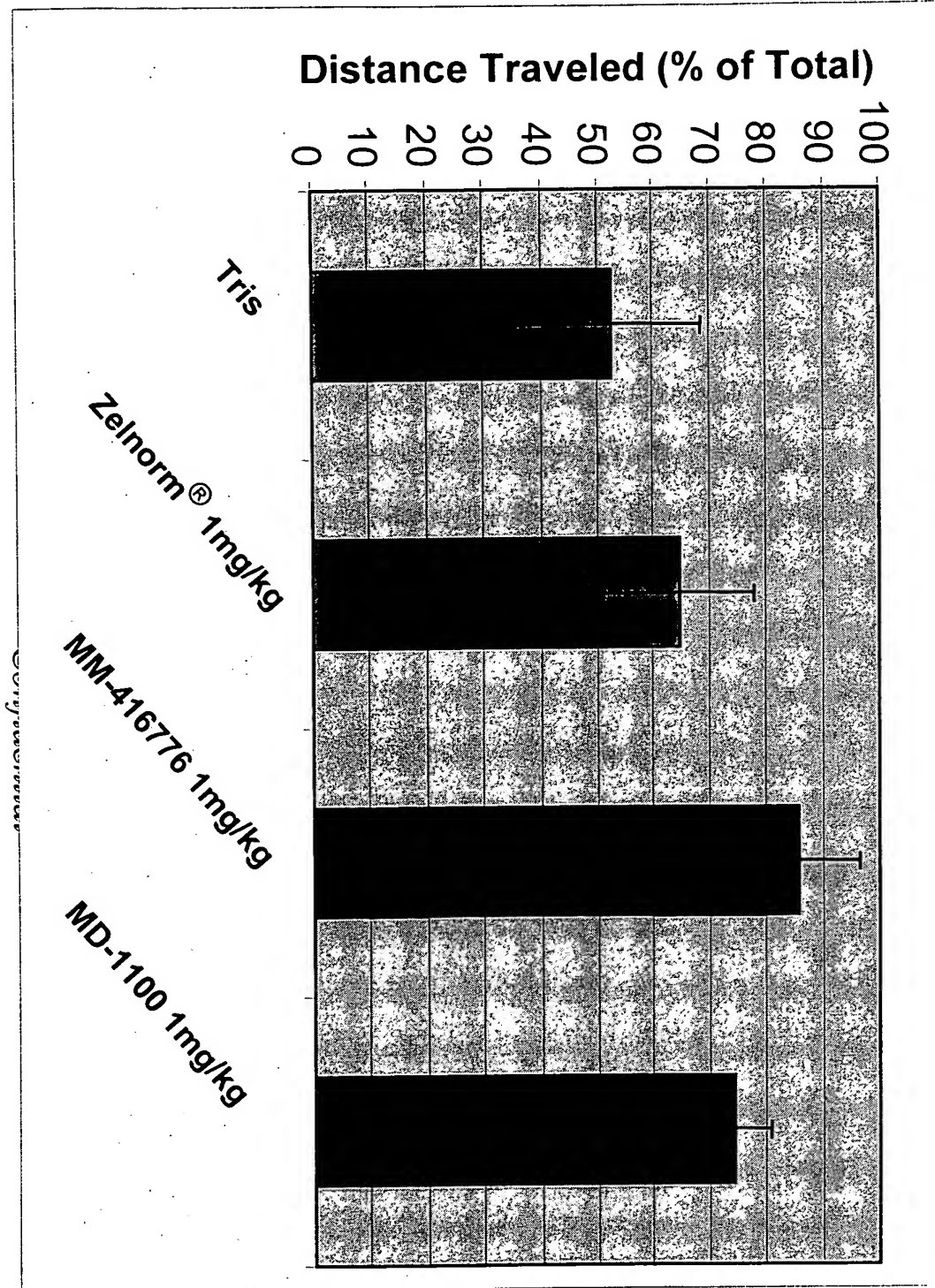
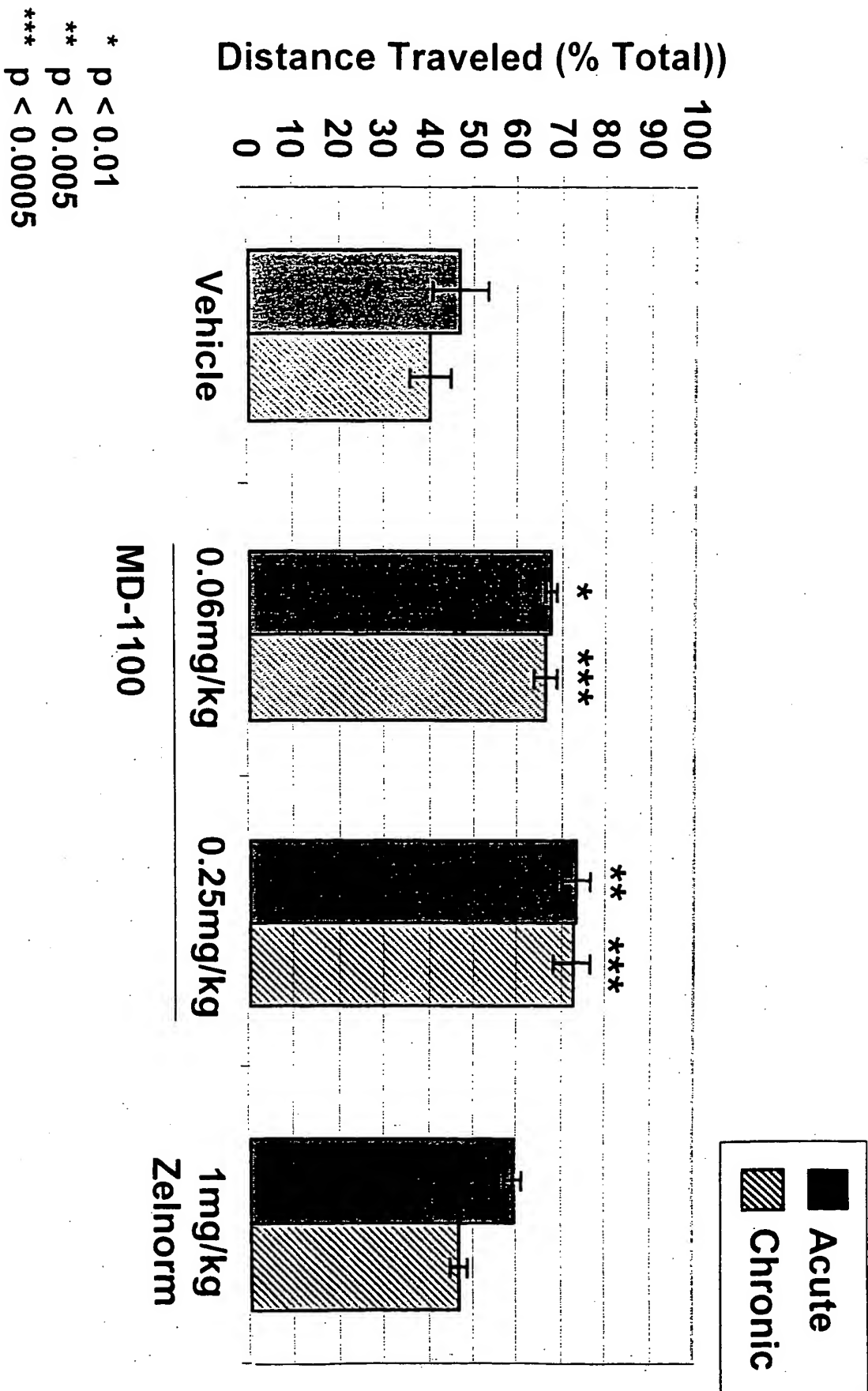
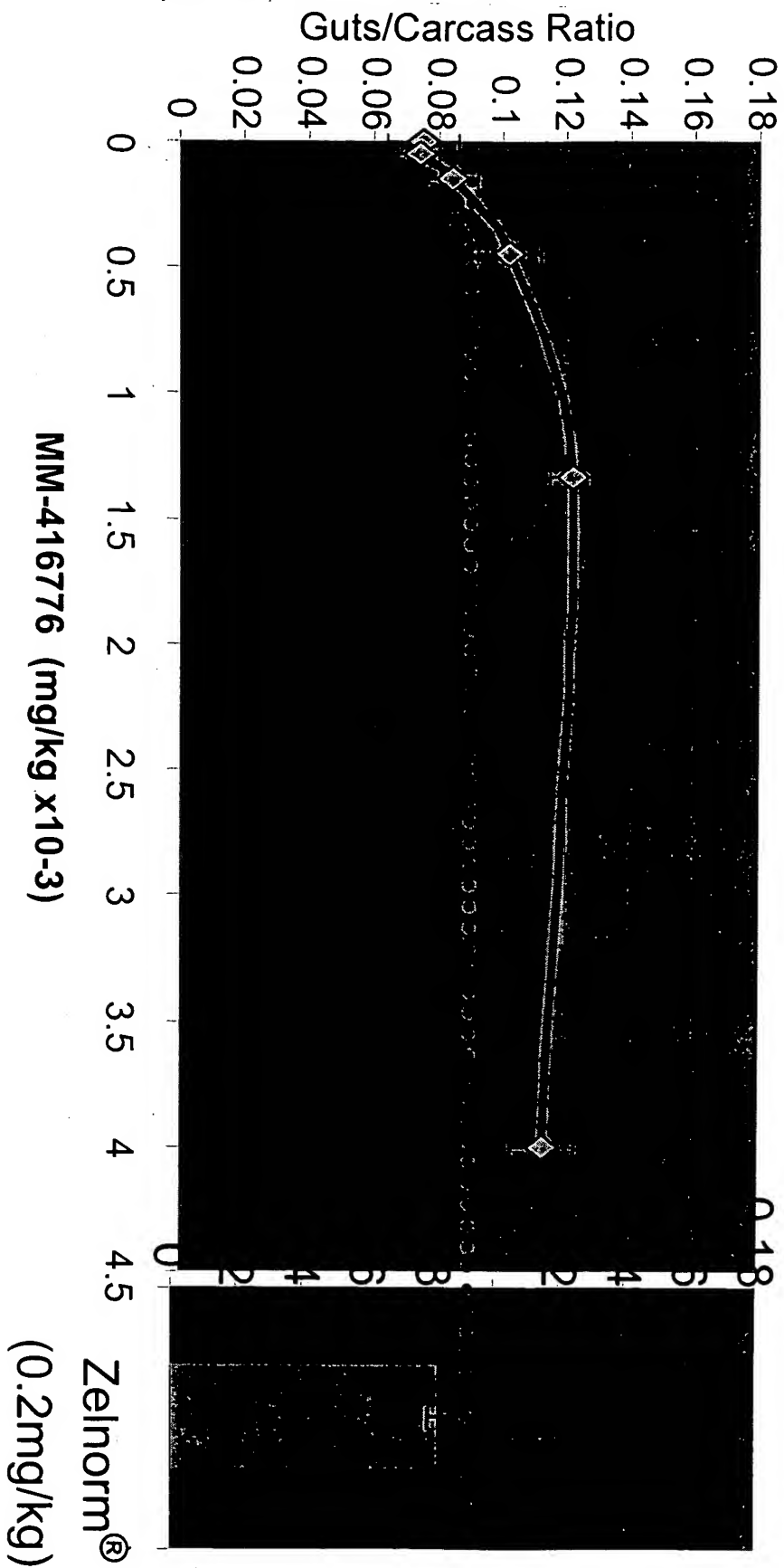
**Figure 4b. Chemically Synthesized Peptides in GIT Model**

Figure 4c. Chronic vs. Acute Dosing in GI Assay



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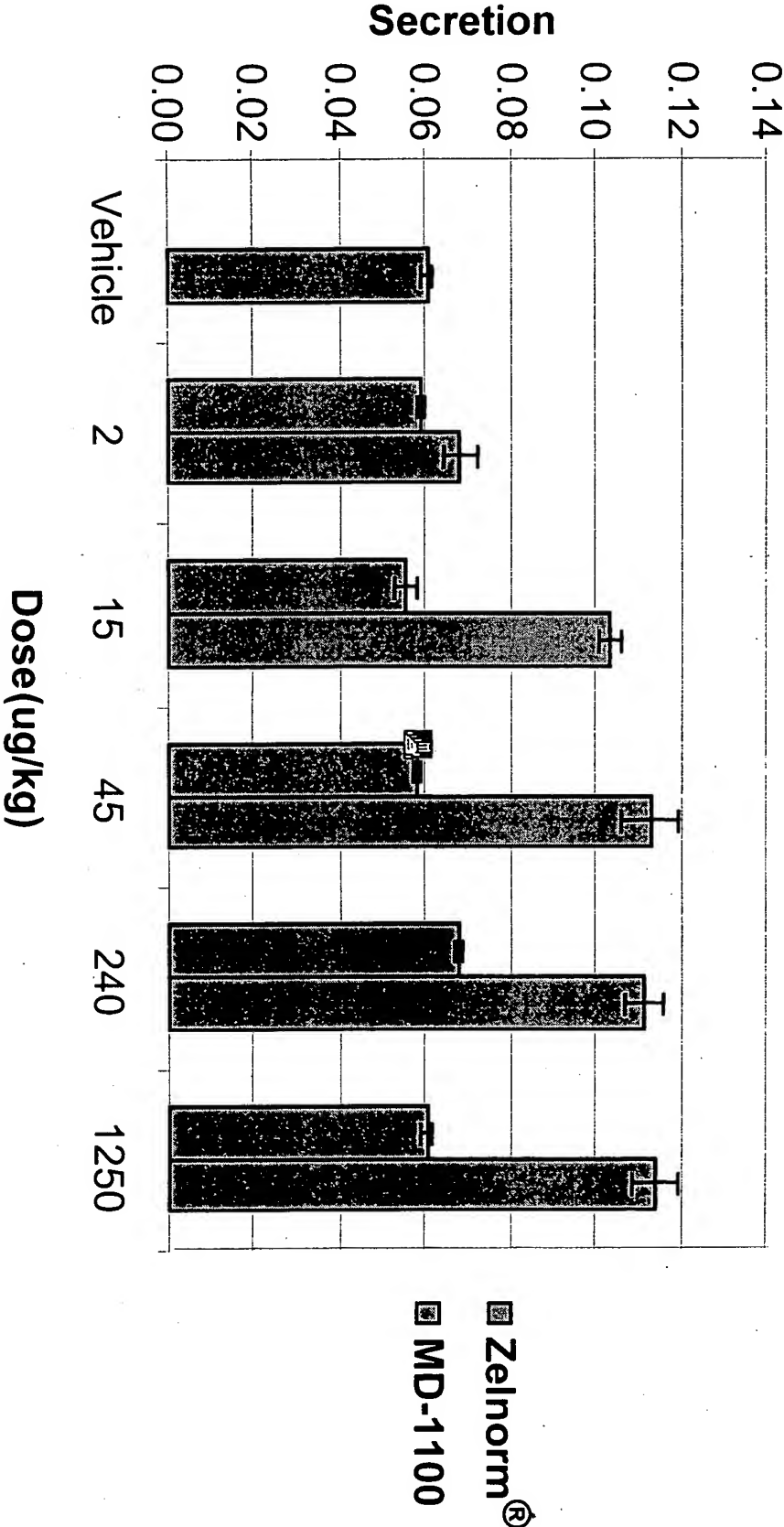
**Figure 5a. MM-416776 vs Zelnorm® in a Mouse Intestinal  
Secretion Model**



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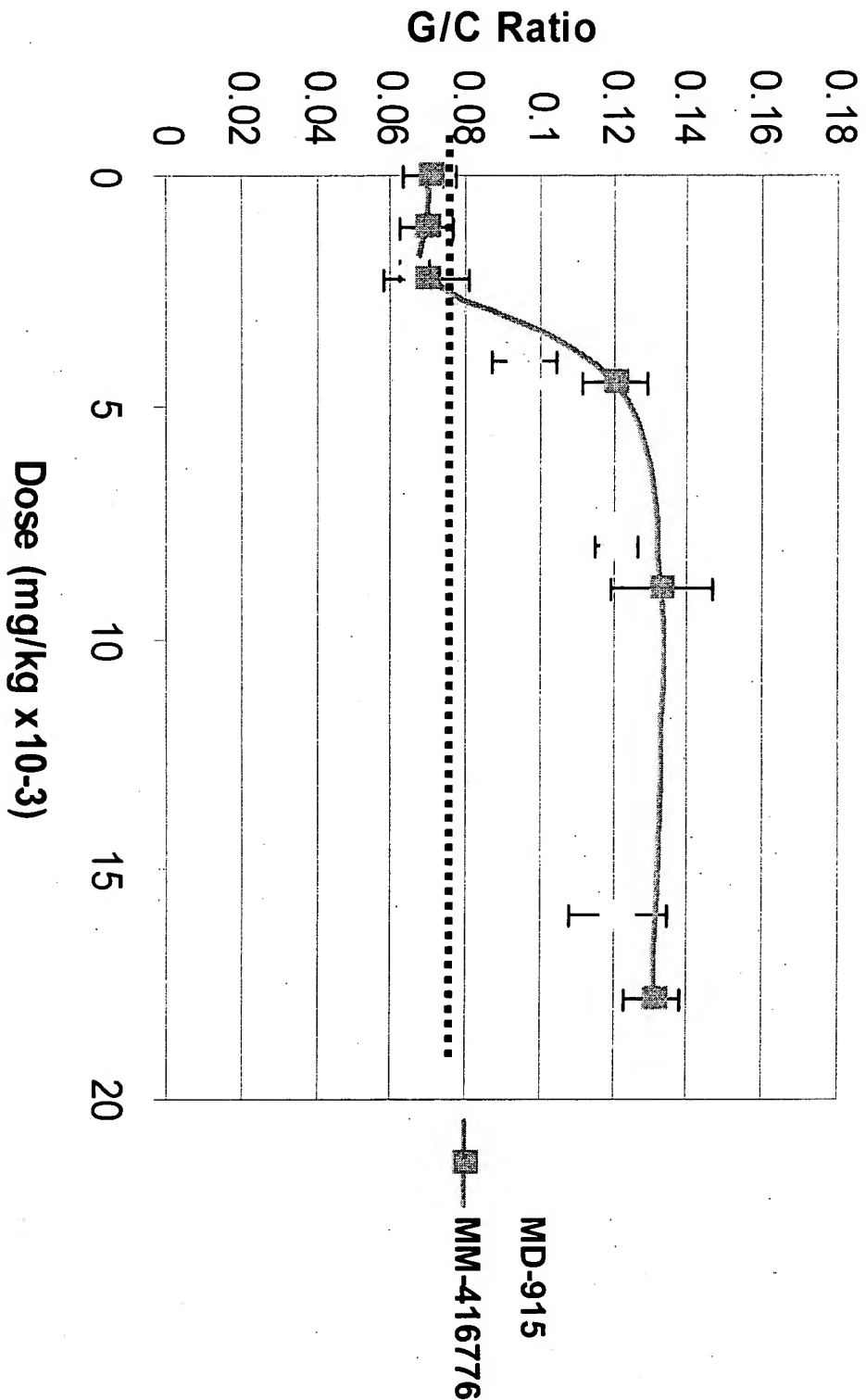
**Figure 5b: MD-1100 vs Zelnorm® in Mouse Intestinal  
Secretion Model**



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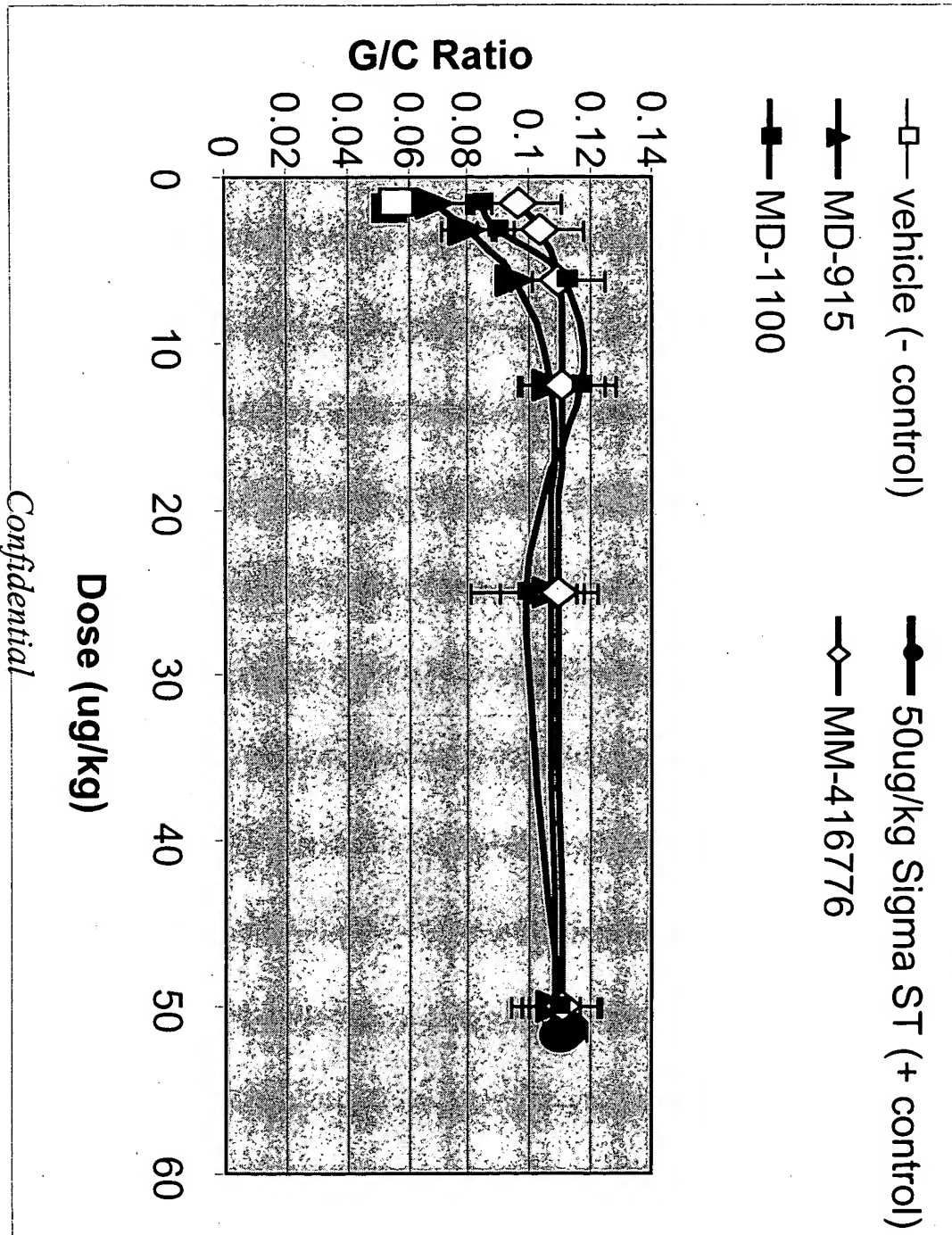
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**Figure 6a. Recombinantly generated MD-915 and MM-416776 in Mouse Intestinal Secretion Model**



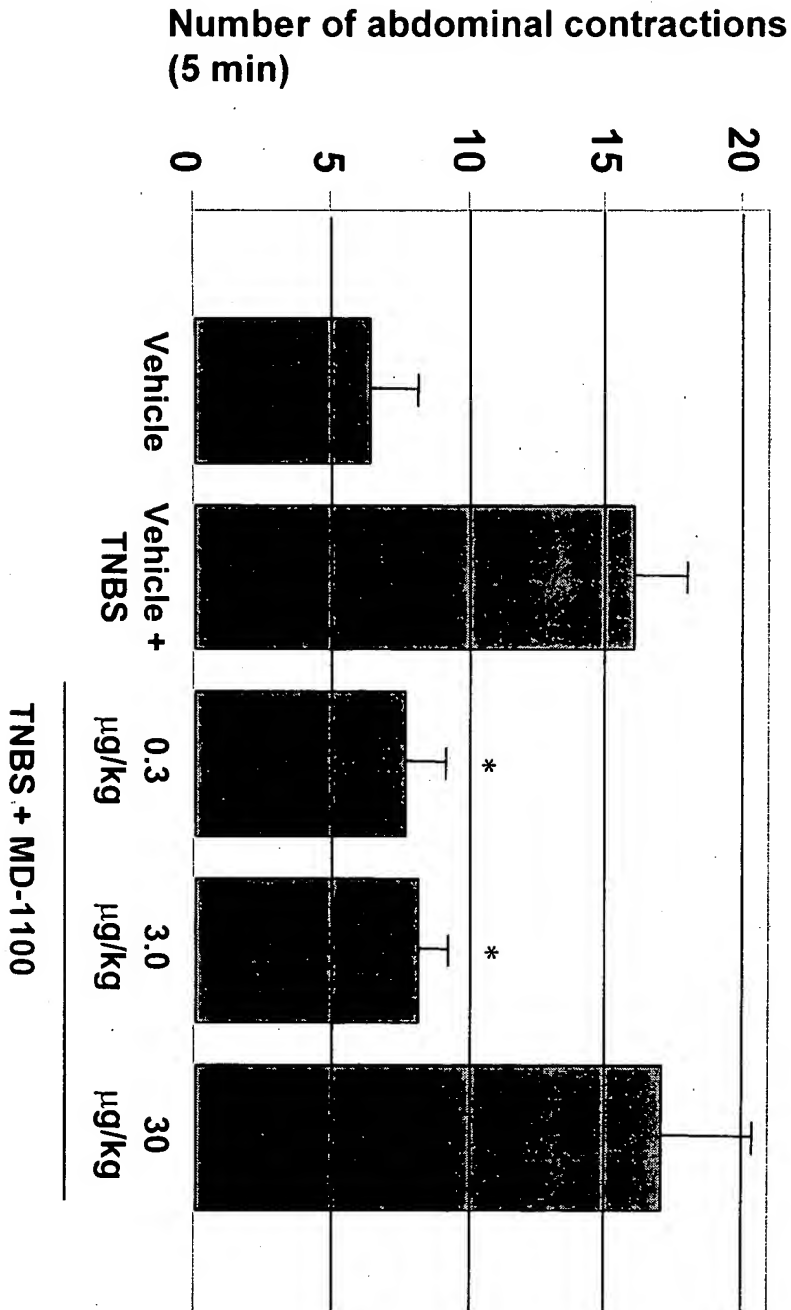
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**Figure 6b. Chemically synthesized peptides in Mouse Intestinal Secretion Model**



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**Figure 7: Effect of MD-1100 in a rat TNBS Colorectal Distention Assay**

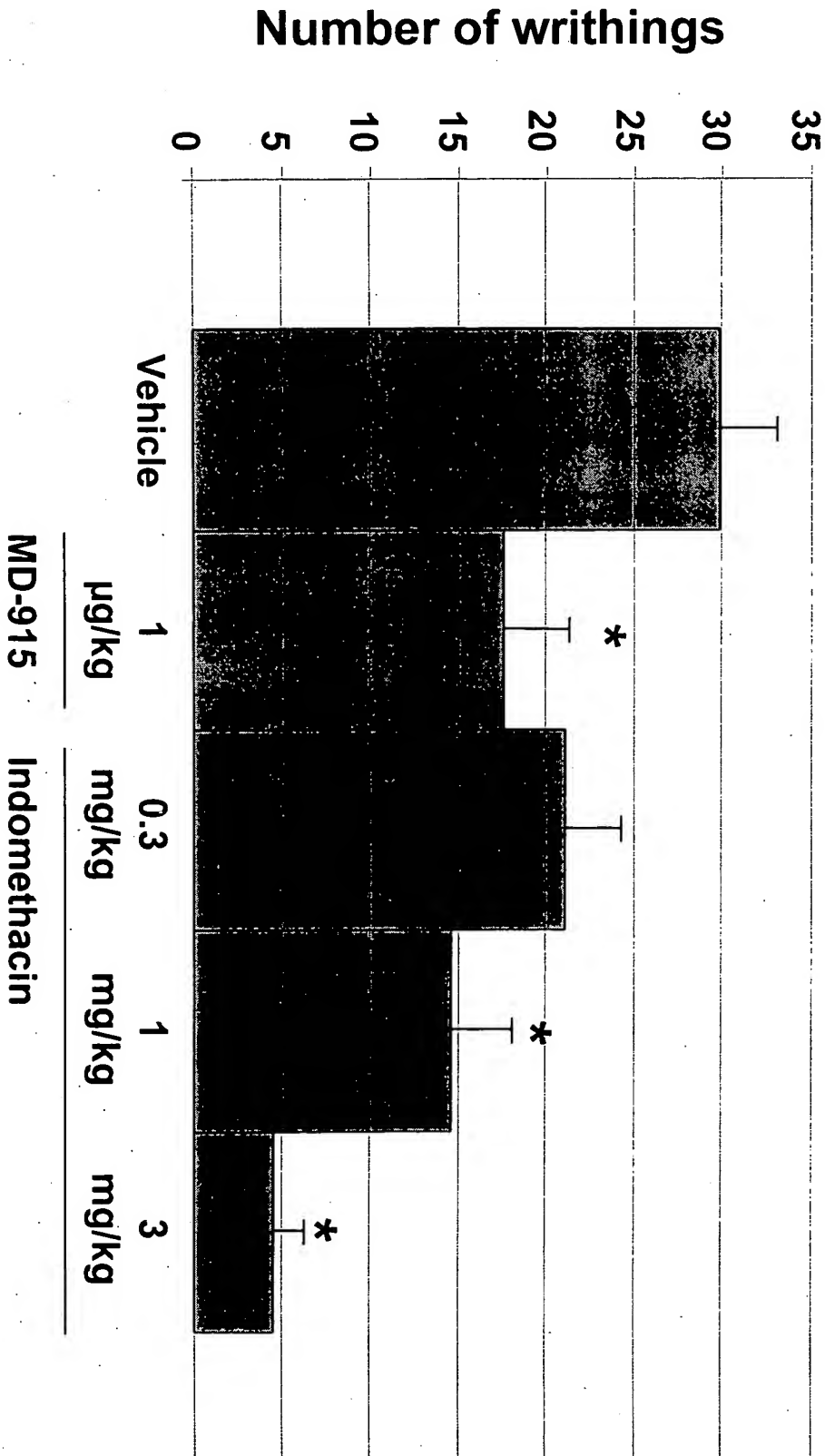


\* p<0.05 as compared to "vehicle" value

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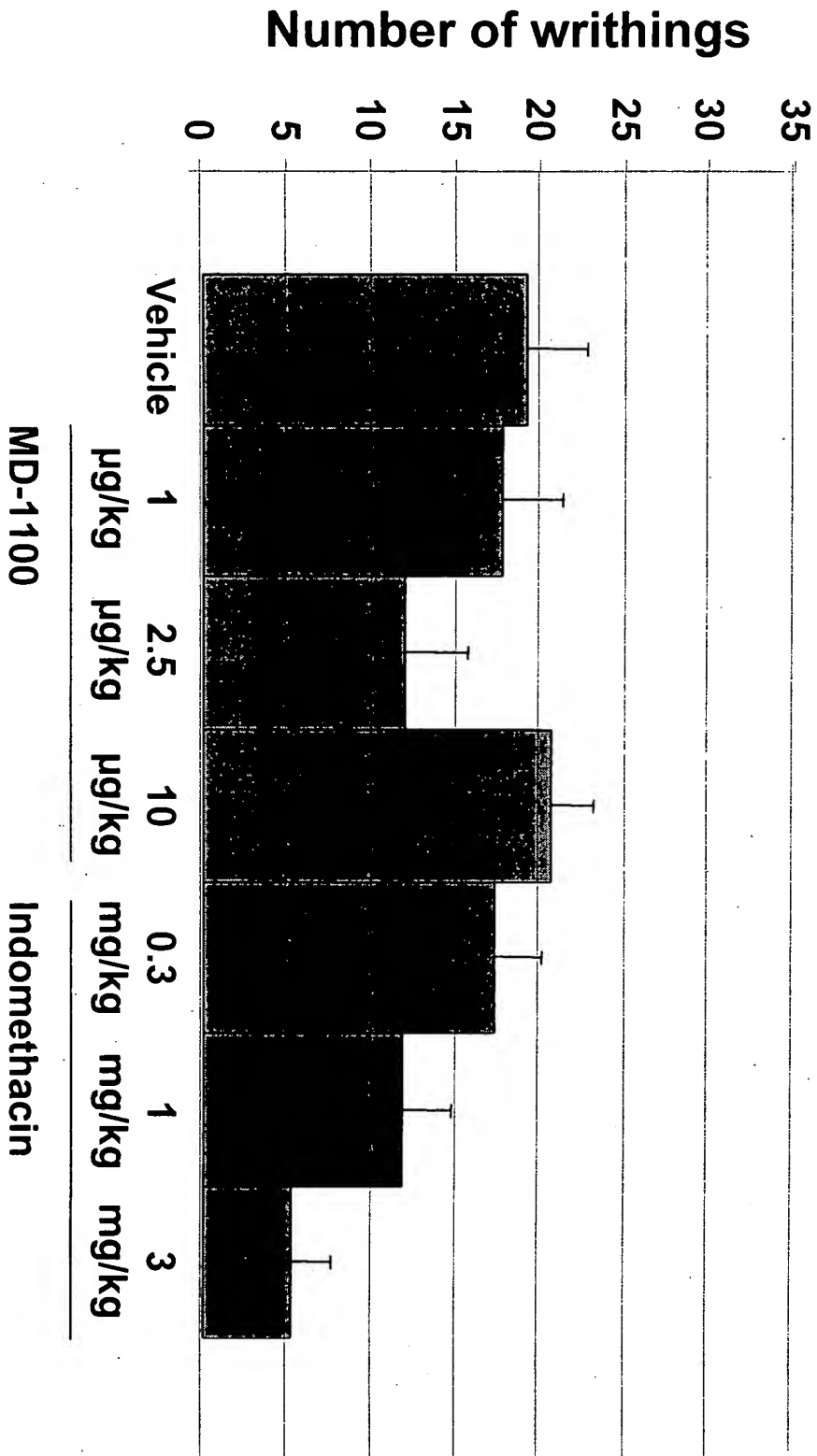
**Figure 8a: Visceral Antinociceptive Effects of MD-915 in a Mouse Writhing Assay**



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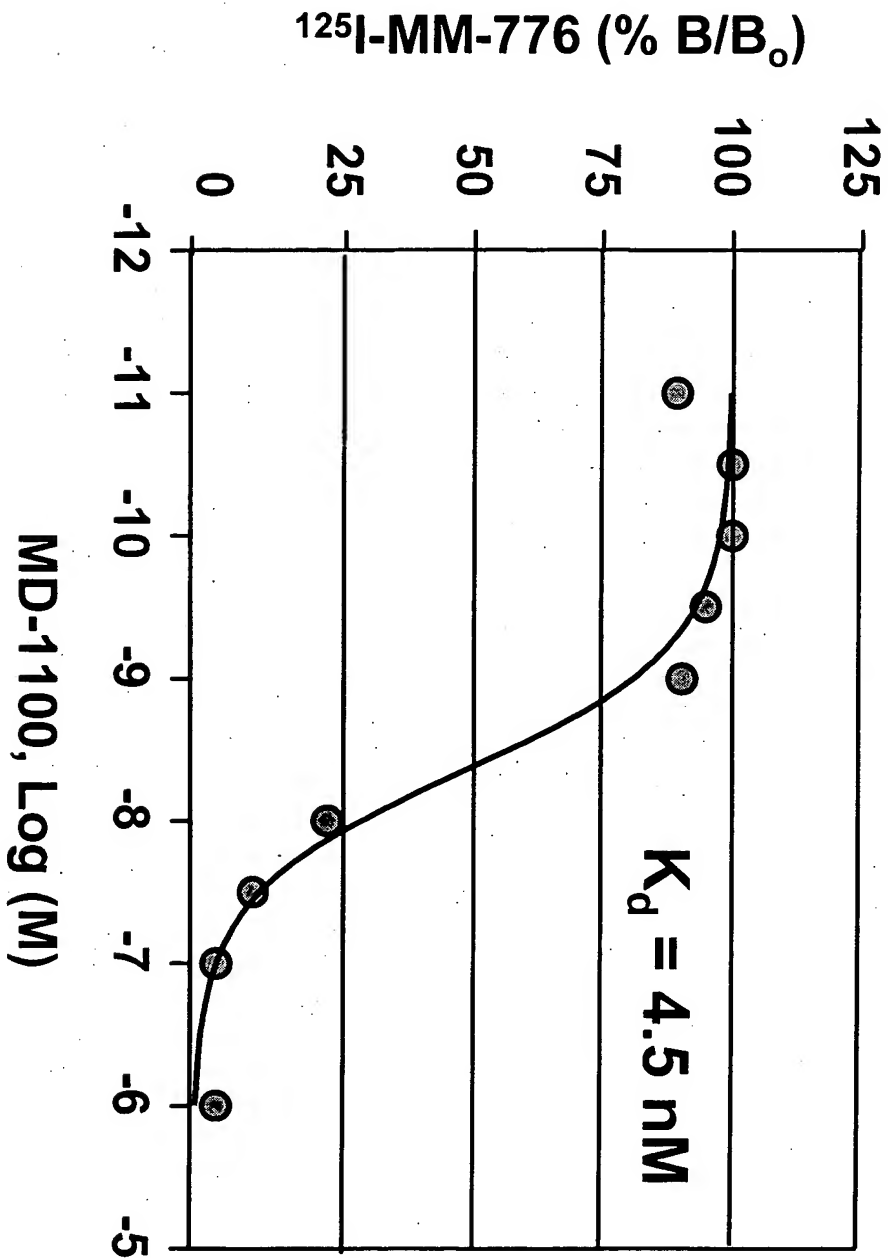
**Figure 8b: Visceral Antinociceptive Effects of MD-1100 in  
a Mouse Writhing Assay**



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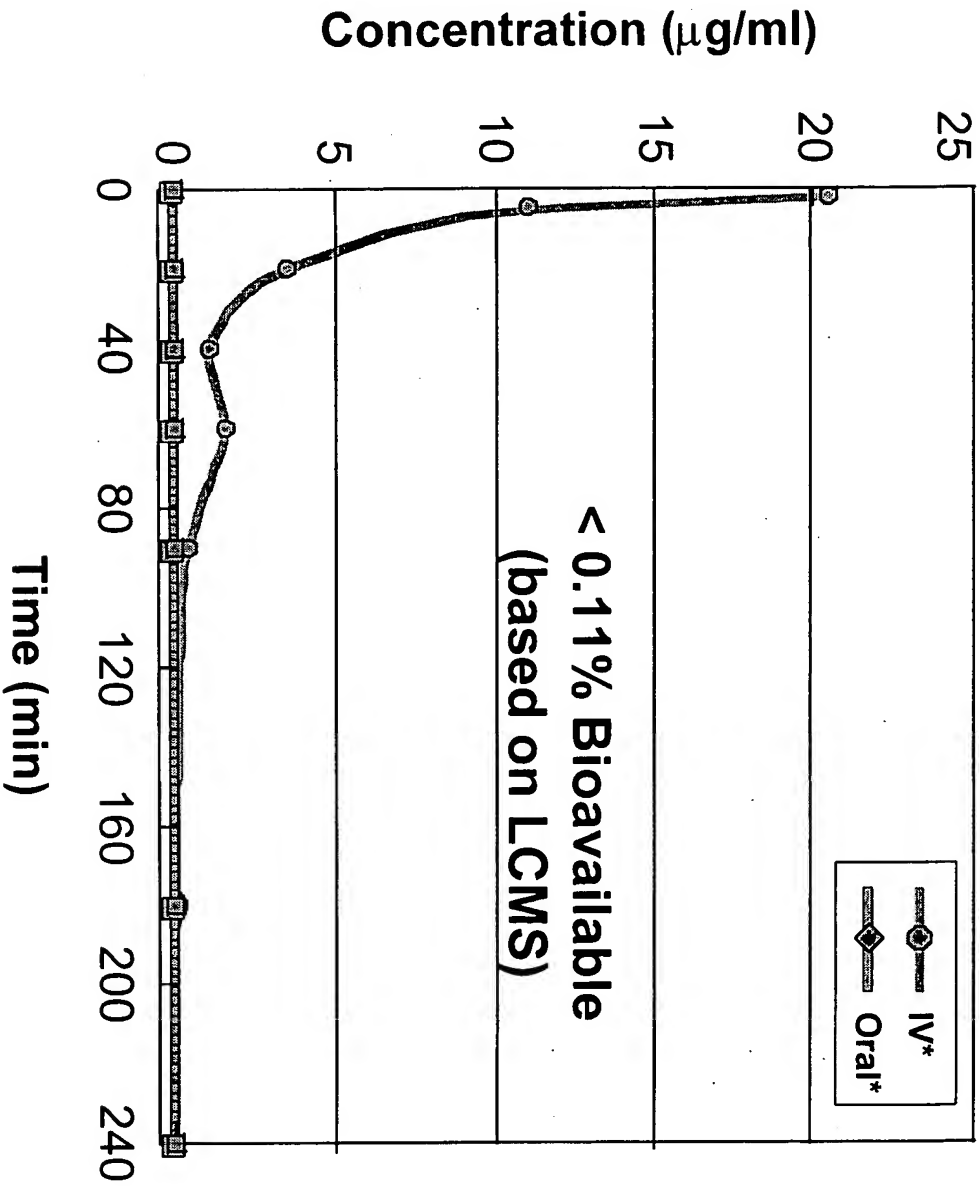
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Figure 9: Competitive Radioligand Binding of MD-1100



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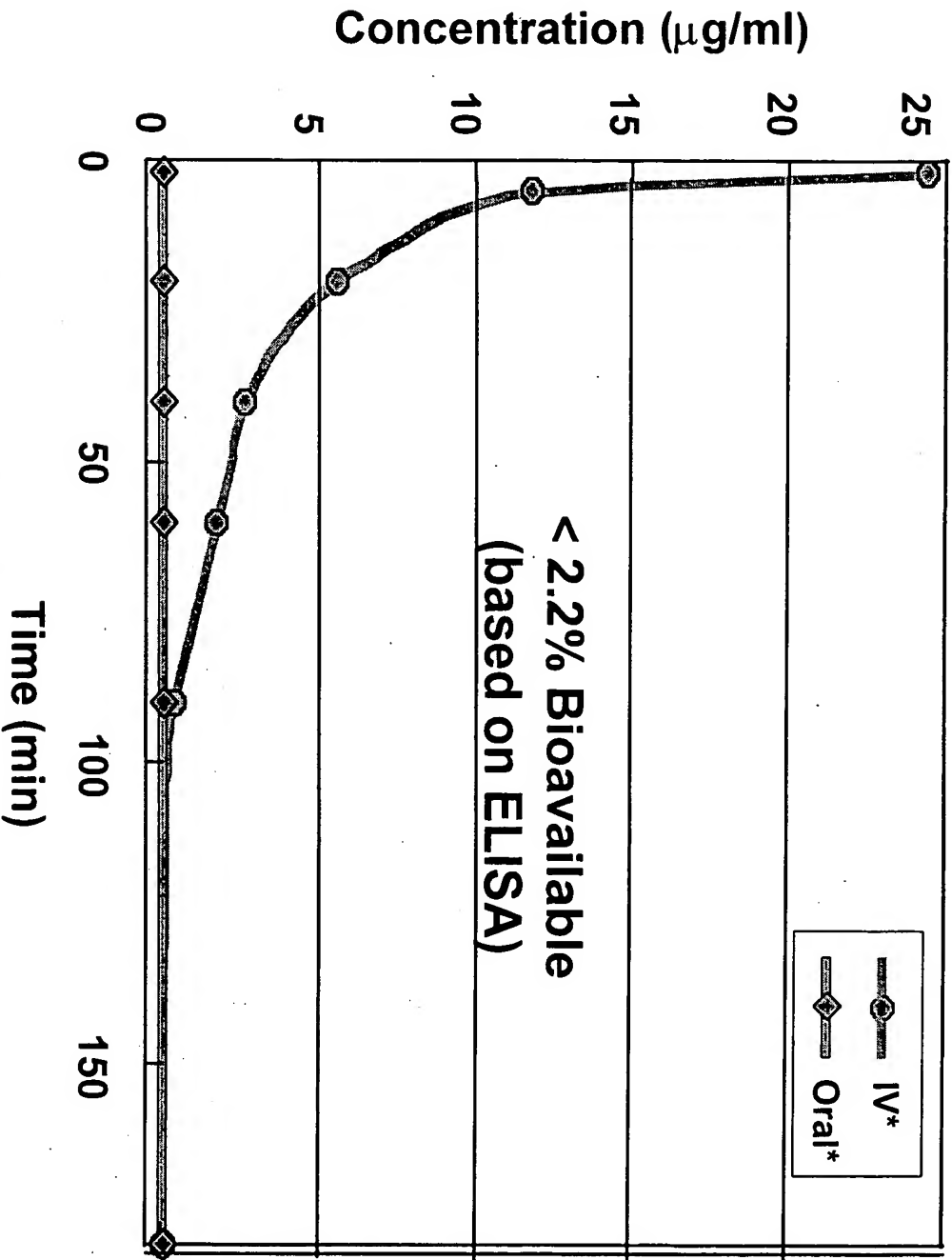
**Figure 10a: Minimum Systemic Absorption of MD-1100  
(based on LCMS)**



- Limit of detection 0.00063 µg/mL (0.6 nM)
- Dosing at 10 mg/kg

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**Figure 10b: Minimum Systemic Absorption of MD-1100  
(based on ELISA)**



\* Limit of detection 0.061  $\mu\text{g/ml}$  (40 nM)  
Dosing at 10 mg/kg  
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